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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/371,343 08/10/99 NOGUCHI

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EXAMINER

ALVO, M

ART UNIT

PAPER NUMBER

1731

DATE MAILED:

01/03/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/371,343**

Applicant(s)  
**POMMIER et al**

Examiner  
**Steve Alvo**

Group Art Unit  
**1731**



☒ Responsive to communication(s) filed on Apr 26, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-6 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-6 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO/9602632 (equivalent to U.S. Patent 5,68,765) with or without SAITO et al or GLASSER et al.

WO/9602632 teaches treating pulp with *Bacillus* sp. SD902 to produce a xylose or xylooligosaccharide. WO/9602632 teaches that the *Bacillus* sp. SD902 treated pulp can be further treated with bleaching agents and/or alkali to bleach the pulp. It would have been obvious that such treatment steps would modify the cellulose in the pulp. WO/9602632 does not remove the xylose or xylooligosaccharide from the cellulose and thus any further treatment of the xylose or xylooligosaccharide would also modify the cellulose. If necessary, GLASSER et al teaches treating xylose or xylooligosaccharide with methyl chloride to produce ethers. See column 1, lines 26-34 and 41-55). It would have been obvious to one of ordinary skill in the art that the cellulose containing xylose or xylooligosaccharide produced by WO/9602632 could be treated with methyl chloride to produce ethers as taught by GLASSER et al. Or SAITO et al teaches

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treating celluloses with an etherifying agent to produce an cellulose ether. It would have been obvious to treat the cellulose of WO/9602632 (wood pulp) to produce a cellulose ether in the manner taught by SAITO et al.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over ADMITTED PRIOR ART (specification, page 2, line 31-36) in view of WO/9602632 (equivalent to U.S. Patent 5,68,765).

ADMITTED PRIOR ART teaches pretreating cellulose with an enzyme followed by modifying the enzyme treated cellulose with epoxyalkane in the presence of quaternary ammonium base to reduce the degree of cellulose depolymerization. It would have been obvious to substitute the cellulase enzyme of WO/9602632 for the cellulase enzyme of the ADMITTED PRIOR ART to reduce the degree of cellulose depolymerization. How does the cellulase modification of the ADMITTED PRIOR ART differ from the modification of the instant method?

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the **primary examiner** should be directed to **Steve Alvo** whose telephone number is **(703) 308-2048**. The Examiner can normally be reached on Monday - Friday from **6:00 AM - 2:30 PM (EST)**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stanley Silverman, can be reached on 703-308-3837.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Group receptionist** whose telephone number is **(703) 308-0661**.

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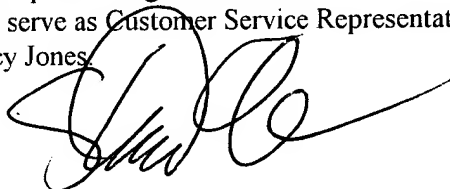
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**STEVE ALVO**  
**PRIMARY EXAMINER**  
**ART UNIT 1731**

MSA  
December 29, 2000